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Planning ahead?

An exploratory study of South Korean Investigators' beliefs about
their planning for investigative interviews of suspects

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Abstract

Preparation and planning has been argued to be vitally important as to how effectively investigators undertake their interviews with suspects. Yet it has also been found in previous research that investigators admit that they plan only occasionally, often attributing insufficient time as reason for not undertaking the task. Employing a novel research paradigm that utilized theoretical foundations concerning planning, the present study explored empirically 95 South Korean financial crime investigators' views, using a self-administered questionnaire. Through the use of second generation statistical modelling, an understanding was developed of the relative relationships between various concepts (which had themselves emerged from an established theoretical framework of planning that had been further extended to accommodate the context of the present study)

The study found that perceived time pressures actually showed a very low association with interview planning. Rather, investigators self-belief as to their own capability alongside workplace culture were each found to have stronger associations with investigators' intentions to plan for their interviews. As such, we argue that there should be more focus on improving occupational culture relating to interview planning, while developing training programs that identify, evaluate and enhance investigators' planning skills. Implications for practice are therefore discussed.

Keywords: Interview planning; PEACE model; Investigative interviewing; Fraud investigation; South Korean policing

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1. INTRODUCTION

Police interviewing of suspects is one of the most crucial stages in criminal investigations (Hartwig, Granhag, & Vrij, 2005; Milne & Bull, 1999). Through an interview, the police can obtain valuable information that can assist in solving a criminal case (Leo, 2008). In some cases, an interview can also lead to a confession or admission of guilt, which in turn will make prosecution easier (Kassin, 2008; Stephenson & Moston, 1994). Because of its importance, multiple models for interviews have been proposed and utilized depending on the jurisdiction (e.g. the Reid model in North America; Leo, 2008; the PEACE model in the UK; Shepherd & Griffiths, 2013). To ensure the success of such models, the interviewers themselves are central to the process (Leo, 2008), and Baldwin (1993) identified the qualities of a good interviewer through a thorough analysis of police interviews. He described that good officers should know the relevant law, study the available evidence, and think of the best structure of the interview. Soukara, Bull, and Vrij (2002) also found that preparation was considered by police detectives to be a core element of successful suspect interviewing.

It has however only been in the last twenty years or so that interview training has emphasized the importance of planning ahead of interviews (Scott, Tudor-Owen, Pedretti, & Bull, 2015). Despite such training, field studies conducted in the UK suggest concerns with some of the interview skills that are believed to be associated with planning (Clarke & Milne, 2001; Walsh & Bull, 2010; Walsh & Milne, 2008). Walsh and Milne (2007) found that, while most investigators acknowledged the importance of planning, far fewer actually said they undertook the task (see also Baldwin, 1993; Cherryman & Bull, 2001; Clarke & Milne, 2001; Walsh & Bull, 2011). The main reason offered was that they had insufficient time to plan. It is

however not known whether this given reason is a valid one. Moreover, previous research has tended to explore how much criminal investigators prepare for interviewing rather than what factors influence investigators' decisions whether or not to plan (Clarke & Milne, 2001; Walsh & Bull, 2010). As a result, little remains known about actual planning and preparation of investigate interviews. The present study is the first study known to the authors that aims to examine which matters (including whether time pressure is responsible for not planning interviews or whether other reasons might be more strongly associated).

1.1 Planning for investigative interviews

An early definition of planning for investigative interviews described the task as “*the mental process of getting ready to interview*”, and preparation as “*considering what needs to be made ready prior to interview. It includes such things as the location, the environment and the administration*” (Central Police Training Unit [CPTU], 1992, p.1, cited in Milne & Bull, 1999, p. 159). Since that initial clarification, other researchers have provided suggestions as to the sub-tasks appropriate to planning (McGurk, Carr, & McGurk, 1993; Milne & Bull, 1999; National Crime Faculty [NCF], 1996; Schollum, 2005). Schollum (2006) aggregated these tasks for all investigative interviewing contexts, including those involving victims and witnesses (see Table 1).

INSERT TABLE 1 ABOUT HERE

Further activities such as (i) contingency planning for the suspect's potential defence(s); (ii) considering the method/order of disclosing several items of evidence/information; and (iii) organising the sequence of topics and questions each need to be added to Table 1 (Dando & Bull, 2011; Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Walsh & Bull, 2015).

1 The importance of pre-interview groundwork has been repeatedly mentioned in the
2 literature as a pivotal attribute of good interviewers (Baldwin, 1993; Bull, 2013; Cherryman &
3 Bull, 2001; Soukara, Bull, & Vrij, 2002; Walsh & Bull, 2010; Walsh & Milne, 2008). Planning
4 before interviewing victims, witnesses and suspects has been incorporated within a prescribed
5 model of interviewing in England and Wales (i.e. PEACE, an acronym for its recommended
6 five stages of planning, engaging and explaining, account gathering, closing and evaluating
7 interviews – Shepherd & Griffiths, 2013 for a more detailed explanation of the model). Since
8 its introduction in the 1990s in England and Wales various other countries have begun to
9 employ the model (e.g. Scandinavia, Canada, and Australia, albeit on occasions in adapted
10 forms, see Bull, 2014; Walsh, Oxburgh, Redlich, & Myklebust, 2016). Regardless of such
11 modifications, it has been commonly contended that investigators should conduct substantial
12 groundwork ahead of interviews.
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29 Research examining interview planning and preparation has mostly been conducted as
30 part of overall field evaluations of the PEACE model (Clarke & Milne, 2001; Walsh & Milne,
31 2008; Walsh & Bull, 2010). Such research has tended to judge how well interview preparation
32 has been conducted by examining if, for example, during interviews investigators appeared to
33 (i) be familiar with the case details; (ii) have actually undertaken groundwork beforehand; (iii)
34 be prepared when faced with alibis and the like from suspects; (iv) conduct the interview in a
35 logical order of topic development; and (v) be familiar with the legal points needed to be proven
36 concerning the suspected offences under investigation. However, research examining what
37 they actually do in terms of preparation for interviews remains rare. Regardless, research has
38 often found that investigators admitted to undertaking little or no planning ahead of interviews,
39 despite professing its importance (Walsh & Milne, 2007). Even more uncommon in prior
40 research is an exploration of what factors appears to be associated with investigators' decisions
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1 Important to investigator decision-making (i.e. in the context of the present study,
2 whether to plan) may well be an investigative mindset (Mortimer & Shepherd, 1999; Shepherd
3 & Griffiths, 2013). Defectiveness in decision making (e.g. developing either a single or
4 premature hypothesis, confirmation bias or stereotyping) has been repeatedly mentioned as a
5 critical factor in investigative failures (Ask & Granhag, 2005; Hill, Memon, & McGeorge,
6 2008; Kassin, Goldstein, & Savitsky, 2003; Rassin, Eerland, & Kuijpers, 2010; Rossmo, 2009).
7 Despite this, little research had been conducted into what influences investigators' decision-
8 making (Fahsing & Ask, 2013). Shepherd and Griffiths (2013) suggest that various actual or
9 perceived workplace pressures may lead investigators to decide upon more expedient ways of
10 investigation, describing this state as one of 'defensive avoidance' (Janis & Mann, 1977). Such
11 a notion (as a means of coping with decisional conflict) in the context of interview planning is
12 manifest in the (i) minimisation of mental demands; (ii) evasion of complex judgement; and
13 (iii) undertaking detailed investigation (Shepherd & Griffiths, 2013). Such a situation, for
14 example, may lead to the generation of a premature and single case hypothesis, reflecting only
15 minimal mental effort and expeditious action (which supports a pre-determined case theory).
16 Accordingly, as thorough planning requires exerted cognitive effort (rather than avoidance),
17 investigators possessing a high need for cognitive closure (see Kruglanski & Webster, 1996)
18 might be reasonably assumed to display a relatively low level of planning.

19 Mortimer and Shepherd (1999) have also argued that investigators' mindset influences
20 pre-interview activities such as gathering and analysing information. Investigators' own
21 schemata and confirmation biases may act as critical elements in accessing, processing,
22 interpreting, and evaluating such information. This can lead to potentially erroneous decision-
23 making throughout the entire investigation (see Shepherd & Griffiths, 2013). Mortimer (1994)
24 found that many investigators had a confession-seeking bias tendency, which affected how,
25 and whether, they undertook subsequent information-gathering. Other studies have also found

1 that most investigators presume suspects to be guilty before an interview takes place (Fahsing
2 & Ask, 2013; Walsh & Bull, 2011, Walsh & Milne, 2007). Mortimer (1994) also contended
3 that police investigators' occupational norms influence investigator reasoning, judgement, and
4 decision-making. Following these arguments, cognitive factors and the occupational culture
5 may well also account for attitudes towards pre-interview investigative activity, including
6 planning.

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8 Another factor that might well influence investigators' decision-making as to whether
9 or not to plan thoroughly (if at all) concerns their own estimations as to how effectively they
10 conduct interviews without having sufficient preparation. A recent study (Walsh, King, &
11 Griffiths, in press) found that investigators consistently over-estimate their interview skills,
12 compared to an independent assessment of the same interviews (which found their skills
13 generally to be at mediocre levels). It might be reasonably presumed that interviewers, lacking
14 self-awareness as to their lack of competence in interviewing skills, might fail to connect such
15 shortfalls to a lack of planning and preparation, particularly as it has been found they rarely
16 evaluate their own interview performance (Walsh & Milne, 2007). Moreover, field studies of
17 investigative interviews have found strong correlations between planning skills and subsequent
18 interview performance (Clarke & Milne, 2001; Walsh & Bull, 2010; Walsh & Bull, 2015).
19 Walsh and Bull (2010) found that those interviewers, whose planning skills were rated as
20 skilled, more often than not obtained a detailed account from suspects (being the aim of the
21 PEACE model), while those interviewers rated as least skilled almost always only obtained
22 fractional accounts.

23
24 In addressing the large research gap regarding what factors determine whether
25 interviewers decide whether or not to plan, it was necessary to operationalise the construct of
26 planning for investigative interview. Based on the authors' expertise and thorough
27 understanding of the interview process, planning for interviews with suspects in the present

study is understood as: “*investigators’ constructive preparation activity for interviewing suspects, which involves setting specific aims and objectives, planning for potential defences, and organising an appropriate sequence of topics, questions and evidence/information disclosure in order to fulfil the purpose of the interview (that is, the gathering of a reliable and comprehensive account)*”.

1.2 Theoretical framework of investigative interview planning

In addition to such operationalisation of interview planning, we also established that there were no suitable measurement tools available to assess planning in an investigative interview context. As such, it was necessary to create one for the current study. This was grounded in theoretical perspectives that will be discussed in the current section. The theory of planned behaviour (Ajzen & Fishbein, 2000; Fishbein & Ajzen, 1975) was adapted as a framework for the present study (see Figure 1). In brief, the theory accords that human behaviour is anchored by three kinds of beliefs: behavioural beliefs (i.e., attitude toward the behaviour), normative beliefs (i.e., subjective norm), and control beliefs (i.e. perceived behavioural control) (Ajzen, 2006). Each type of belief is argued to effect, either favourably or unfavourably, subsequent components (Ajzen, 2006).

INSERT FIGURE 1 ABOUT HERE

Subjective norm, according to Ajzen (1991), relates to the possible presence of any social pressure (whether approval or disapproval) that effects the act of planning, which may be evident in strong organisational cultures such as policing (Davis, 2013; Mortimer, 1994). *Perceived behavioural control* has two aspects (i.e. internal and external). The former is thought associated with Bandura’s ‘perceived self-efficacy’ concept (1982), being found to mediate participants’ perseverance on solving intellectual problems (Cervone & Peake, 1986).

1 External factors (such as *perceived time pressure* – see Walsh & Milne, 2007) might be related
2 to “perceived controllability over behaviour” (Conner & Armitage, 1998, p. 1439).
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4 Individuals’ *intentions* represent the motivational factors which influence their behaviour,
5 indicating how much people will exert effort in order to perform the behaviour. Conner and
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7 Armitage (1998, p.1450) argued however that “intentions do not always lead to the successful
8 enactment of behaviour”.
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14 Investigator decision making was also incorporated into the framework. Investigative
15 mindset and defensive avoidance are argued to be integral components of the concept of the
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17 *need for cognitive closure* (or *NFCC*; see Kruglanski, 1989, 1996). *NFCC* refers to individuals’
18 preference for unambiguity, with those assessed with a high need being characterised by a
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20 tendency to form quick judgements based on a solitary hypothesis, despite inconclusive
21 evidence, while avoiding others’ dissenting viewpoints (Kruglanski & Webster, 1996). While
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23 Ask and Granhag (2005) did not find confirmation bias linked to *NFCC* amongst investigators,
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25 the current study examined whether *NFCC* is associated with insufficient planning.
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34 In summary, in building a theoretical framework of planning for interviews with
35 suspects (see Figure 2), the present study suggests an exploratory model of investigators
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37 planning, based on the existing theory of planned behaviour, while incorporating the two
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39 additional factors of *NFCC*, and *perceived time pressure*.
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51 In light of the foregoing we hypothesised that there would be positive associations
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53 between interviewers’ (i) attitudes towards undertaking the planning task; (ii) cultural
54 expectations and beliefs concerning the task; (iii) beliefs as to their own ability to undertake
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56 interviews efficaciously without thorough planning; and (iv) perceived planning intent and
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planning behaviour. In addition, it was hypothesized that ‘time pressure’ and ‘need for cognitive closure (NFCC)’ would have a moderating effect on the relationship between intention and planning.

2. METHOD

2.1 Materials

A questionnaire was developed following the above theoretical framework. Having first obtained ethical approval from the authors’ home university, the questionnaire (see Appendix 1) was successfully piloted with 15 investigators (i.e. no issues of ambiguity were found with the questions, while reporting relative ease in both understanding and completing the questionnaire). The instrument firstly involved a series of demographic questions relating to gender, rank and length of professional experience. Three dichotomous questions were also asked relating to respondents’ experience/views concerning training (either in the PEACE model or any preparation training). Thirty items associated with the theory of planned behaviour (TPB) were assessed using a seven-point Likert scale, where 1 = ‘Strongly disagree’ and 7 = ‘Strongly agree’. The 15 NFCC related questions followed the work of Roets and Hiel (2011) using an ascending six-point Likert scale, where 6 = ‘Strongly agree’. Each of the two sets of questions were interspersed. Further, some questions were inversely coded (see Appendix 1: Reverse coded items = Nos.2,10,19,22,23 TPB questions; Nos.2,10,15 of the NFCC ones).

Also included in the questionnaire were questions relating to investigators’ *attitudes*. First, questions concerning evaluation ahead of planning were asked (see Appendix 2, items APP1-2). The questionnaire additionally covered more specified aspects of evaluation (that is, necessity, effectiveness, efficiency, and usefulness of interview planning). The questionnaire

also included questions concerning *subjective norms* (adapted from Fishbein & Ajzen, 2010) that related to investigators' perceptions of external pressure from, say, peers or superiors (SN 1-4). *Self-efficacy* was also included, which measured investigators' beliefs in their own interview planning skill (SE1- 6).

Regarding investigators' motivation to undertake planning, *intention* (INT 1-3 - see Appendix 2) was measured. *NFCC*, was measured by a single indicator, while *perceived time pressure*, involved five questions (modified from Teng, Hsiao, & Chou, 2010 - see PTP 1-5 in Appendix 2). Finally, the *perceived level of planning interviews (PLPI)* concerns investigators' recall of their planning experiences (PLPI 1-6) during the preceding two months before their survey responses.

2.2 Participants

Korean financial crime investigators (FCIs) were selected as the sample participants, since they generally undertake investigations themselves from the outset of the case. Convenience sampling was adopted because of time and environmental limitations. However, as the research involved police stations in a similar law-enforcement area, systemic error was expected to be small. No incentives were given to respondents.

2.3 Procedure

During 2014, FCIs in eight police stations, located in Gyeonggi and Incheon areas of Korea, were selected as sources of possible participants. Each FCI team manager agreed to distribute the questionnaires to relevant FCI participants in their team, who were given a week to voluntarily complete the questionnaires. Participants were first instructed not to confer with their colleagues when completing the questionnaire and then place them. Once completed, they were each placed in sealed envelopes in a designated area for the team manager to collect,

before their onward dispatch by the manager to the first author. Since the questionnaire contained no identifying information, the participants could be assured of their anonymity.

3. RESULTS

3.1 Demography of the participants

Of the approximate 125 distributed questionnaires¹, 95 completed ones were received. Eighty percent (n=76) of the respondents were male, and of the whole sample all but two indicated that they had undergone PEACE training (however despite this training, only 82 felt that had received training in planning). Even so, 94.74 % (n=90) expressed a view that being trained to conduct planning was a necessity. Among the sample was one (1.05 %) junior ranked frontline officer, while 30.53% (n=29) were senior frontline police officers, 17.89% (n=17) were Assistant Inspectors, 42.11% (n=40) were Inspectors, and 8.42% (n=8) were Senior Inspectors. Forty-eight respondents each possessed over three years' investigation experience, regardless of their rank (with 35 of these possessing over five years' experience). Thirty (31.58%) respondents had been less than a year in post, while seventeen respondents had been a FCI between one and three years.

3.2 Analytical and statistical framework

A second-generation statistical program of path-modelling termed Partial Least Squares (PLS-PM) was used for the data analysis, being a form of structural equation modelling (SEM). The PLS-PM is especially well suited for the present study with its relatively small sample size. The PLS-PM method estimates parameters of both inner (structural) and outer (measurement)

¹ The exact number of questionnaires distributed is not known owing to staff movements/absence of the FCIs in the eight stations and this is an approximate figure.

models. ‘Outer model’ refers to the evaluation of the relationship between observable indicators and latent (or unobservable) variables, such as attitudes and perceptions, while ‘inner model’ involves the evaluation of the latent (or hidden) variables.

We used Smartpls 3.0 to analyse both the outer and inner models. PLS-algorithms were calculated with all indicators of each latent variable, followed by bootstrapping in order to assess statistical significance. The analysis criteria were based on the default setting (i.e., 300 maximum iterations and 500 subsamples, where $p=0.05$). Three potentially problematic indicators loaded especially poorly on the latent variable in question, and were therefore excluded from later analysis. Firstly, SN4 was removed since it showed low loading (i.e. 0.35). Secondly, PLPI5 (and PTP 2) were both excluded because they did not significantly load onto the proposed latent factor.

The present study also investigated the potential for measurement error as a result of the chosen methodology (common method variance). The importance of testing this is evident as it can skew the results (Podsakoff, MacKenzie, & Lee, 2003). Common method bias was tested by two distinct approaches (see below) on how to address potential self-administered survey method biases. Harman’s single factor test was conducted by undertaking an exploratory, un-rotated factor analysis of all the indicators with the exception of NFCC. This produced showed six distinct factors, with the largest one explaining 33.7% of the variance, as shown in Table 2. Secondly, as there was no correlation which exceeded 0.90 between the indicators, no common method bias was found. This indicates that such systematic measurement error will not threaten the validity of the results and conclusions of the present study (Podsakoff et al., 2003).

INSERT TABLE 2 ABOUT HERE

The analysis of the measurement (outer) and structural (inner) model was conducted simultaneously, but is presented separately here for the ease of reading.

3.3 Measurement Model (Outer Model)

3.3.1 Evaluation of the formative indicators

Firstly, the formative measurement model was tested because this should be differentiated from reflective indicators (Chin, 2010). As we noted above, the aim of the measurement model is to establish the relationships between the observed variables (indicators) and the proposed latent factors. Following the initial indicator screening, multi-collinearity was checked for each of the formative indicators by the level of VIF (Variance Inflation Factor). Next, a two-block model ‘redundancy analysis’ was conducted to investigate the convergent validity of indicators. PLS bootstrapping was also conducted, and the indicators were considered significant at $p < 0.05$. For the assessment, three new models for each formative construct were created for ‘redundancy analysis’ to assess convergent validity, and analysed by PLS.

The *attitude* construct model for redundancy analysis showed high correlation of 0.85 between its indicators (see Figure 3). However, the weightings of two indicators (i.e. ATT5 and ATT6) were found not significant ($p > 0.05$). Nevertheless, it was decided to still include them due to their absolute contribution to each latent variable (i.e. high-loadings with significant level, see Table 3) and their conceptual meaning for this study. Next, multi-collinearity was checked for each of the indicators by the level of Variance Inflation Factor (VIF). It was found that, as the VIF for all *attitude* indicators was below Lowry and Gaskin’s (2014) threshold of rigour of 3.3 (see Table 3), multicollinearity did not exist. This result indicated that sufficient validation of *attitude* indicators was achieved.

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12 The *self-efficacy* construct was then similarly tested. The path-coefficient was 0.79, argued
13 as acceptable in such an exploratory study as the present one (see Figure 4). Indicators SE3
14 and SE5 showed relatively stronger weightings than SE4 and SE6 (both of which were non-
15 significant). Nonetheless, the latter indicators were not excluded as all outer model loadings
16 were significant ($p < 0.01$). The VIFs for all *self-efficacy* indicators were below the acceptable
17 criterion of 10 (Lowry & Gaskin, 2014).
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29 Undergoing the same procedure, the *perceived level of planning interviews (PLPI)*
30 construct was also similarly tested. The correlation between the PLPI indicators was 0.79 (see
31 Figure 5). As such, all formative indicators were found to be significant (see Table 3).
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3.3.2 Evaluation of the reflective indicators

To assess the reflective indicators, the constructs were analysed by performing a confirmatory factor analysis. As shown in Table 4, all indicators showed high loadings over 0.70, except SN1 (0.67), which is acceptable, all being significant. Also, all composite reliabilities, used to assess internal consistency (being an alternative to Cronbach's alpha), were found to be over 0.70 (i.e. the reliability threshold).

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INSERT TABLE 4 ABOUT HERE

To evaluate the convergent validity of the indicators, the Averaged Variance Extracted (AVE) was examined (see Table 4), consistently finding values exceeding the threshold of 0.5 (Bagozzi & Yi, 1988). Outer loadings of indicators on their latent construct were compared with the loadings of other indicators (see Table 5), concluding that the loadings had acceptable values (Lowry & Gaskin, 2014). Each square root of AVE of the latent variables was examined (see Table 6). All the relationships were stronger than those between the latent variables. This indicates that the constructs have good discriminant validity.

INSERT TABLE 5 ABOUT HERE

INSERT TABLE 6 ABOUT HERE

3.4 Structural Model (Inner Module)

Figure 6 shows the inner model results. As can be seen from this figure, three pathways were statistically significant ($p < 0.05$). The beta for the path between subjective *norm* and *intention* was 0.45, while the corresponding figures between *self-efficacy* and *intention*, and in turn, *intention* and *PLPI* was found to be $\beta = 0.41$ and $\beta = 0.80$ respectively. The R^2 of *intention* was 0.65, and of *PLPI* was 0.67 ($p < 0.01$). *Attitude*, *subjective norm*, and *self-efficacy* accounted for 65% of the variance in *intention*, while, in turn, *intention* accounted for 66.7% of the variance in *PLPI*. Not all paths between the latent variables were significant as can be seen from Table 7.

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INSERT TABLE 7 ABOUT HERE

Effect sizes were calculated, finding f square for the relationships between (i) *self-efficacy* and *intention* to be 0.42; (ii) *subjective norm* and *intention* to be 0.33; while (iii) the effect size was 1.89 for *intention* on *PLPI* (where 0.40 values and above for f are deemed strong, while medium strength effect sizes lie between 0.25 to 0.49 for f – see Gefen & Straub, 2005).

Only, attitude to *intention* and *perceived time pressures* to *PLPI* showed path coefficients at the level of $p < 0.10$. In addition, the proposed moderating effect of *perceived time pressures* and *NFCC* between *intention* and *PLPI* was not-significant (i.e. *perceived time pressures* interaction = -0.07 with $p = 0.18$, *NFCC* interaction = 0.01 with $p = 0.61$).

4. DISCUSSION

As previous research upon the planning phase of investigative interviews has mostly examined only the *level* of planning, the present study set out to examine an area yet to be explored; that is, the possible reasons associated with investigators' decision making as whether or not to plan. As such, the current study adds to the increasing and expanding literature base on investigate interviewing.

The present exploratory study provided empirical understanding of factors proposed to be associated with investigators' planning interviews with suspects. Firstly, it was hypothesised that interview planning would be positively associated by interviewers' attitudes towards undertaking the task. Among the antecedent factors of the theory of planned behaviour, *attitude* was found to have a weak relationship with planning *intentions*. The findings indicated that regardless of their rank, career or gender, most participants in our survey provided a positive

1 evaluation of planning. Contrary to assumptions, however, investigator attitudes were not
2 found to be associated with their interview preparations. This could be so due to inconsistency
3 between attitude and actual behaviour (Ajzen & Fishbein, 2005). The relative importance of
4 each indicator of investigator attitudes towards planning varied. Perceptions relating to the
5 usefulness of planning and those concerning efficiency were found to be more important than
6 indicators pertaining to perceived necessity of planning and its effectiveness, which were found
7 to be much less influential.
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12 As hypothesised, *intention* to plan was strongly associated with *PLPI*. This finding
13 suggests that police investigators who have more intention to plan would, in turn, engage in
14 more planning than those who have less. This supports the belief that *intention* is probably
15 most strongly associated with the prediction of planning behaviour (Ajzen, 1991; Armitage &
16 Conner, 2001). It is, however, acknowledged that this finding could possibly stem from one of
17 the study's methodological limitations, since *PLPI* was measured by surveying participants'
18 perceptions rather than their actual practice. Investigators may also have considered that since
19 they believe that they undertake much planning, their intentions must be accordingly strong. If
20 that is indeed the case, it might be the perceived level of planning that is prompting the intention,
21 and not the reverse. As such, it is recommended that future research into this area is undertaken
22 by other methods, such as observational or 'think aloud' methodologies.
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26 In line with the next hypothesis, the correlations suggested a strong relationship
27 between *subjective norm* and planning intentions. Such a relationship is perhaps not surprising
28 since such normative beliefs (or organisational culture) has repeatedly been considered an
29 important factor in criminal investigations (Chan, 2007; Crank, 2010; Gottschalk, 2007). The
30 latter is likely related to the specific and unique working culture that dominates much police
31 practice, which is mostly learned from 'on the job' experience (Tong, Bryant, & Horvath, 2009).
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1 Interestingly, the variable of whether fellow investigators tended to investigate first
2 before interviewing did not load onto the *subjective norm* construct. This was not unexpected
3 because the content of the question is quite different from that of the other *subjective norm*
4 indicators contained in the questionnaire, and consequently the question may have been
5 unfamiliar to participants. At the same time, two-thirds of participants provided a rating for
6 this question of less than the mid-point of the scale. As such, it might be assumed that the
7 investigators' perceptions concerning the culture of 'investigate after interviewing' is relatively
8 high. This finding would reflect inconsistency with the fundamental aims of investigative
9 interviewing (i.e. where, whenever possible, interviews with suspects should be undertaken
10 later in the investigative process). Considering that the survey involved financial crime
11 investigators, this is a finding of some concern, if found to be one that plays out in practice.
12 Such investigators have greater opportunity to defer interviews until after a comprehensive
13 investigation has been completed, and fulsome evidence painstakingly gathered, than say,
14 homicide or terrorism detectives (where matters of public protection from further harm are
15 more likely to prompt both earlier arrest and interview of a suspect, before opportunity has
16 occurred to collect much evidence).

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Self-efficacy was found to have a strong relationship, as hypothesised, with both
planning *intention* and *PLPI*. Indeed, *self-efficacy* was found to have a stronger association
with *intention* than *subjective norm*. A possible explanation might involve the cognitively
demanding activity associated with the planning of interviews. Prior research has found *self-*
efficacy to have a significant relationship with various cognitive tasks (e.g. Celuch, Kozlenkova,
& Black, 2010; Cervone & Peake, 1986; Conner & Armitage, 1998; Pajares & Kranzler, 1995;
Pajares & Schunk, 2001). *Self-efficacy* has also been found to be associated with employee
motivation and effort when learning difficult tasks (Lunenbergh, 2011). Walsh, King, and

Griffiths (in press) found, in their study of investigators, a self-confidence about own interviewing ability, which in turn was found consistently inferior to that objectively assessed.

Of the examined *self-efficacy* indicators, that of ‘organising questions’ was found to be of highest importance to investigators in their planning, while other indicators of ‘predicting suspects’ defences’, ‘knowing topics to ask’, and ‘knowing points to prove’ were found to be much less important. The latter three interviewing tasks are, however, considered to be critical when planning interviews (Shepherd & Griffiths, 2013; Walsh & Bull, 2010). As such, it is a matter of concern that investigators feel that these activities merit less attention. Thus, this finding suggests that police investigators who have more intention to plan would, in turn, engage in more planning than those who have less. This supports the belief that *intention* is probably most strongly associated with the prediction of planning behaviour (Ajzen, 1991; Armitage & Conner, 2001).

Perceived time pressures and *NFCC*, somewhat counter-intuitively, were found to have minimal correlation with *PLPI*. Participants apparently felt little *time pressure* for handling their cases, a finding that is inconsistent with prior research (Baldwin, 1992; Cherryman & Bull, 2001; Walsh & Milne, 2007; Walsh & Milne, 2008). This finding might be related to the previously mentioned speculation that financial crime investigators are more likely to be able to have greater opportunity to thoroughly investigate before interviewing (and thus, in principle at least, possess greater time for planning). However, it may be that time pressure, when perceived to be moderate, may act as a stimulant for planning (Baer & Oldham, 2006; Freedman & Edwards, 1988; Janssen, 2001).

The findings of the present study suggest that law enforcement agencies may well need to enhance the importance of interview planning for officers trained in the PEACE model (through, say, good supervision following such training). While planning is a fundamental part of the PEACE model, studies suggest that it is a task to which officers rarely attend (Walsh &

1 Bull, 2011; Walsh & Milne, 2007). Further, studies of interviews conducted in the field suggest
2 that planning is mediocre in practice, with thorough and skilled planning rarely having taken
3 place (Clarke & Milne, 2001; Walsh & Bull, 2010; Walsh & Bull, 2012). Such studies have
4 also noted the positive association between planning skills and the recommended PEACE
5 interview outcomes of obtaining extensive accounts from suspects, underlining the importance
6 of planning. Indeed, Griffiths (2008) found that officers' planning skills faded over time after
7 training, also noting that training alone (no matter how good) is insufficient in itself to ensure
8 skills are maintained.
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10 Walsh and Bull (2010) found some interviews in their sample (also of fraud investigators)
11 were being conducted before an investigation had fully taken place, noting that such interviews
12 were of a 'fishing trip' characteristic. These interviews were, without exception ones, they had
13 also rated as most poor in terms of planning skills (and likewise, least associated with the
14 gaining of comprehensive accounts). Fraud investigators invariably have the luxury of being
15 able to fully conduct a thorough investigation before any interview with identified suspects
16 (compared, say, to violent crimes, where public safety issues may mean that an early arrest and
17 interview of a suspect might be required before a thorough investigation has been allowed to
18 take place). The findings from the present study suggest that occupational culture is associated
19 with investigators' decisions as to whether or not to plan. As such, if an 'interview before (fully)
20 investigating' occupational culture exists, wherever possible, such a maxim should be changed
21 to 'interview after (fully) investigating'.
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23 Furthermore, current training should address both investigators' motivation to plan, as well
24 as their capabilities of accurately assessing their own performance, since the present study
25 found that *self-efficacy* is critically important to planning intent. Griffiths (2008) found that
26 planning is a complex task. However, investigators have been found to possess little self-
27 awareness of how poor were their own planning skills (Walsh et al., in press). Griffiths & Walsh
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(submitted) found that more accurate self-awareness was only apparent when investigators exercised skilled reflection. Additionally, training for interview planning should emphasise the dangers of planning inflexibly, when considering the dynamic nature of groundwork.

4.1 Study Limitations

The present study, as with all studies, possesses limitations. First, it used a self-administered questionnaire, which could be affected by various biases (e.g. consistency motif, social desirability, leniency bias, and genuine misremembering). Second, the findings may not be fully generalizable since it was confined to FCIs operating in South Korea. Third, there may also be generalisability issues relating to the fact that more than two-thirds of respondents were quite senior officers, who may not regularly conduct interviews. On the other hand, almost a third stated that they had less than a year's professional experience. Nevertheless, over a third of respondents possessed more than five years' experience and it would be reasonably expected that their views emerged from the vantage point of their having conducted many interviews. When turning to investigators' individual cognitive dispositions, while *NFCC* was not found to significantly relate to *PLPI*, we speculate whether this finding might stem from the limitation to assess such cognitive disposition through abridged self-administered questionnaires. Indeed, other research (which also employed similar limited predictors) also found non-significant outcomes (O'Neill, 2011). Ask and Granhag (2005) also found that *NFCC* did not significantly affect bias in investigative decision-making. As these authors recommend, a more valid test of this disposition might be needed.

4.2 Summary

Overall, this exploratory research has provided empirical understanding concerning investigators' interview planning attitudes. Using the framework of a well-known theory of

human behaviour, the study did find factors apparently associated with investigators' planning. The working environment norms of police investigators were found to be strongly associated with planning *intentions*. Also, investigators' *self-efficacy* of their planning related capabilities was also found to have a strong relationship with *intention* and *perceived level of planning*. Above all, *intention* to plan was found to have a powerful association with interview planning. Contrary to common beliefs regarding possible reasons for poor planning (i.e. *time pressure*), the present study found that investigators' own perception of their planning skills and their *subjective norms* appear to potentially play a more substantial role. Thus, necessary measures and academic research undertaken to improve any lack of planning might be less focused on the *time pressure* issue.

However, further research is required to understand the actual interview planning practice of police investigators, to establish how to enhance planning practice (e.g. by using 'think aloud' methodologies). Recent research on developing effective strategies when interviewing suspects has emphasised the importance of developing an interview strategy (Dando, Bull, Ormerod, & Sandham, 2015; Hartwig, Granhag, Strömwall, & Vrij, 2005; Hartwig et al., 2006; Hartwig, Granhag, & Strömwall, 2007; van der Sleen, 2009; Walsh & Bull, 2015). The necessity to plan interviews should not be overlooked, being as important as other investigative tasks. Better prepared interviewers will be better placed to challenge capricious and evasive suspects. Additionally, better prepared investigators tend more often to establish the reliability of given accounts (Walsh & Bull, 2010). Finally, interview planning is not a discrete task (Walsh, King, & Neville, 2012). As such, further research is essential to examine all pre-interview groundwork (such as investigative decision-making) to help contribute to effective investigative interviewing.

Ethical statement

No external funding is associated with this research. There is no conflict of interest within the research itself or the research team. As stated in the article, research ethics was provided by the home university, having successfully proceeded through the relevant ethics committee (who ensured that all survey respondents were advised of their informed and voluntary consent before their participation).

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Appendix 1: Survey Questionnaire

(Note: the original questionnaire was in the Korean language, but has been translated here the purposes of publication)

This study intends to understand the relationship of possible factors which influence the investigator's planning behaviour prior to suspect interviewing. This questionnaire was formulated to discover investigator's perception, which relates to actual planning behaviour and other internal or external factors which could affect planning activity of police investigators. Your participation is highly expected to contribute to the development of police investigation. The researcher appreciates your join in this study. Please read each question carefully and answer it to the best of your ability. There are no correct or incorrect responses; so please answer those questions following your genuine opinion. We guarantee the participant's anonymity.

< What is your gender? >

- Male / Female

< What is your rank? >

- Policeman / Senior Policeman / Assistant Inspector / Inspector / Senior Inspector

< How long have you been working in the current investigation position (i.e. investigative interviewing)? >

- 1 year / 1 - 2 years / 2 - 3 years / 3- 5 years / over 5 years

The below questionnaire is intended to ask your perception on the planning suspect interviewing related issue. Please answer with your genuine opinion, as there is no proper answer. This used 7-likert scale from 1, which means 'Strongly disagree', to 7, which is 'Strongly agree'. Although the question looks like repeating, every question has its own meaning.

No	Question	Absolutely Disagree	Absolutely Agree
1	I think planning suspect interviewing is desirable for successful interviewing outcome.	1 - 2 - 3 - 4 - 5 - 6 - 7	
2	I don't think my peer investigators expect me to do planning interviewing for successful interviewing outcome.	1 - 2 - 3 - 4 - 5 - 6 - 7	
3	I think I am good at planning interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
4	I intend to do planning interviewing prior to suspect interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
5	I think I often feel time pressure to finish the assigned criminal case	1 - 2 - 3 - 4 - 5 - 6 - 7	
6	During the last two months, I usually have made specific interview plan prior to suspect interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
7	I think planning suspect interviewing is good for successful interviewing outcome.	1 - 2 - 3 - 4 - 5 - 6 - 7	

No	Question	Absolutely Disagree	Absolutely Agree
8	I think planning suspect interviewing is necessary for successful interviewing outcome (or, obtaining anticipated outcome)	1 - 2 - 3 - 4 - 5 - 6 - 7	
9	I think my team manager expect me to do planning interviewing for successful interviewing outcome.	1 - 2 - 3 - 4 - 5 - 6 - 7	
10	I don't think I have enough competences in planning interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
11	I will try to do planning interviewing prior to suspect interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
12	I think I often feel in a hurry to finish the assigned criminal case	1 - 2 - 3 - 4 - 5 - 6 - 7	
13	During the last two months, I usually have planned for suspect interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
14	I think planning suspect interviewing is useful for successful interviewing outcome	1 - 2 - 3 - 4 - 5 - 6 - 7	
15	I think my peer investigators are trying to do planning before interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
16	I think I am good at figuring out important topics which should be dealt in interviewing prior to actual interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
17	I am well motivated to do planning interviewing prior to suspect interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
18	I think I often feel very busy in dealing with the assigned criminal case	1 - 2 - 3 - 4 - 5 - 6 - 7	
19	I don't think I often feel heavy time pressure to finish the assigned criminal case	1 - 2 - 3 - 4 - 5 - 6 - 7	
20	During the last two months, I usually have set some sort of interview goal which I must accomplish prior to suspect interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
21	During the last two months, I usually have made a list of points to prove prior to suspect interviewing.	1 - 2 - 3 - 4 - 5 - 6 - 7	
22	I don't think planning suspect interviewing is efficient for intended interviewing outcome.	1 - 2 - 3 - 4 - 5 - 6 - 7	
23	I think my peer investigators do interviewing first rather than investigating first.	1 - 2 - 3 - 4 - 5 - 6 - 7	
24	I think I am confident of predicting suspect's defence before interviewing suspect.	1 - 2 - 3 - 4 - 5 - 6 - 7	

No	Question	Absolutely Disagree	Absolutely Agree
25	I think I often have limited time to handle my case	1 - 2 - 3 - 4 - 5 - 6 - 7	
26	During the last two months, I usually have contemplated the possible defence of suspect prior to suspect interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
27	I think planning suspect interviewing is effective for successful interviewing outcome	1 - 2 - 3 - 4 - 5 - 6 - 7	
28	I think I have good ability to organise sequence of questioning.	1 - 2 - 3 - 4 - 5 - 6 - 7	
29	During the last two months, I usually have made plan for how to ask questions in what order prior to suspect interviewing	1 - 2 - 3 - 4 - 5 - 6 - 7	
30	I think I have good competences in recognising points to prove before interviewing suspect	1 - 2 - 3 - 4 - 5 - 6 - 7	

Next the questionnaire measures your own cognitive disposition. Please answer in the same way as before.

No	Question	Absolutely Disagree	Absolutely Agree
1	I don't like situations that are uncertain	1 - 2 - 3 - 4 - 5 - 6	
2	I like questions which could be answered in many different ways	1 - 2 - 3 - 4 - 5 - 6	
3	I find that a well-ordered life with regular hours suits my temperament	1 - 2 - 3 - 4 - 5 - 6	
4	I feel uncomfortable when I don't understand the reason why an event occurred in my life	1 - 2 - 3 - 4 - 5 - 6	
5	I feel uncomfortable when I don't understand the reason why an event occurred in my life	1 - 2 - 3 - 4 - 5 - 6	
6	I don't like to go into a situation without knowing what I can expect from it	1 - 2 - 3 - 4 - 5 - 6	
7	When I have made a decision, I feel relieved	1 - 2 - 3 - 4 - 5 - 6	
8	When I am confronted with a problem, I'm dying to reach a solution very quickly.	1 - 2 - 3 - 4 - 5 - 6	
9	I would quickly become impatient and irritated if I would not find a solution to a problem immediately	1 - 2 - 3 - 4 - 5 - 6	

No	Question	Absolutely Disagree	Absolutely Agree
10	I like to be with people who are capable of unexpected actions	1 – 2 - 3 - 4 - 5 - 6	
11	I dislike it when a person's statement could mean many different things	1 – 2 - 3 - 4 - 5 - 6	
12	I find that establishing a consistent routine enables me to enjoy life more	1 – 2 - 3 - 4 - 5 - 6	
13	I enjoy having a clear and structured mode of life	1 – 2 - 3 - 4 - 5 - 6	
14	I do not usually consult many different opinions before forming my own view.	1 – 2 - 3 - 4 - 5 - 6	
15	I like unpredictable situations	1 – 2 - 3 - 4 - 5 - 6	

< Have you ever had a training which is for ‘planning suspect interviewing’?> -
Yes / No

< Do you think that there is a need to training for ‘planning suspect interviewing’?>
- Yes / No

< Have you been taught about PEACE model of England and Wales? >
- Yes / No

Thank you for your participation

Appendix 2: Explanation of Measurement Items

Construct	Operationalised Definition	Label No.	Items	Type of construct
Attitude(ATT)	Investigator's evaluative perception on the planning behaviour prior to suspect interviewing	ATT1	I think planning suspect interviewing is desirable for a successful interviewing outcome.	Reflective
		ATT2	I think planning suspect interviewing is good for a successful interviewing outcome.	
		ATT3	I think planning suspect interviewing is necessary for a successful interviewing outcome (or, obtaining intended outcome)	Formative
		ATT4	I think planning suspect interviewing is useful for a successful interviewing outcome	
		ATT5	I think planning suspect interviewing is efficient for a successful interviewing outcome	
		ATT6	I think planning suspect interviewing is effective for intended interviewing outcome	
Subjective Norm(SN)	Investigator's perceived external pressure(norm) on the planning behaviour prior to suspect interviewing	SN1	I think my peer investigators expect me to do planning interviewing for a successful interviewing outcome.	Reflective
		SN2	I think my team manager expect me to do planning interviewing for a successful interviewing outcome.	
		SN3	I think my peer investigators are trying to do planning before interviewing.	
		SN4	I think my peer investigators do interviewing first rather than investigating first.	
Self-efficacy (SE)	Investigator's perceived competency in planning interviewing prior to suspect interviewing	SE1	I think I am good at planning interviewing	Reflective
		SE2	I think I have enough competences in planning interviewing	
		SE3	I think I am good at figuring out important topics which should be dealt in interviewing prior to actual interviewing	Formative
		SE4	I think I am confident of predicting suspect's defence before interviewing suspect.	
		SE5	I think I have a good ability to organise sequence of questioning.	

		SE6	I think I have good competences in recognising points to prove before interviewing suspect	
Intention(INT)	Investigator's desire to do planning interviewing prior to suspect interviewing	INT1	I intend to do planning interviewing prior to suspect interviewing.	Reflective
		INT2	I will try to do planning interviewing prior to suspect interviewing.	
		INT3	I am well motivated to do planning interviewing prior to suspect interviewing.	
Need for Cognitive Closure (NFCC)	Investigator's individual NFCC			Single-item (actually, summational item)
Perceived Time Pressure(PTP)	Investigator's perception on the degree of how much time pressure they have in handling their assigned investigation case	PTP1	I think I often feel time pressure to finish the assigned criminal case	Reflective
		PTP2	I think I often feel in a hurry to finish the assigned criminal case	
		PTP3	I think I often feel very busy in dealing with the assigned criminal case	
		PTP4	I think I often feel heavy time pressure to finish the assigned criminal case	
		PTP5	I think I often have limited time to handle my case	
Perceived Level of Planning Interview (PLPI)	Investigator's perception on how much they did planning interview during last two months	PLPI1	During the last two months, I usually have made specific interview plan prior to suspect interviewing.	Reflective
		PLPI2	During the last two months, I usually have planned for suspect interviewing	
		PLPI3	During the last two months, I usually have set some sort of interview goal which I must accomplish prior to suspect interviewing	Formative
		PLPI4	During the last two months, I usually have made a list of points to prove prior to suspect interviewing.	
		PLPI5	During the last two months, I usually have contemplated the possible defence of suspect prior to suspect interviewing	
		PLPI6	During the last two months, I usually have made plan for how to ask questions in what order prior to suspect interviewing	

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Table 1: Tasks required when planning for interviews

Task
<ul style="list-style-type: none">○ understanding the purpose of the interview○ obtaining as much background information as possible on the incident under investigation, including (for suspects) information on the person to be interviewed○ defining the aims and objectives of the interview○ understanding and recognising the points to prove○ assessing what evidence is available and from where it was obtained○ assessing what evidence is needed and how it can be obtained○ understanding the legislation and associated guidelines and considerations○ preparing the mechanics of the interview (attending to exhibits, logistics, venue, equipment functioning, seating, and so on).

Table 2: Harman's Factor Analysis

Component	Initial Eigenvalues			Extraction of Squared Loadings		
	Total	% Variance	Cumulative %	Total	% Variance	Cumulative %
1	10.117	33.725	33.725	10.117	33.725	33.725
2	4.812	16.039	49.764	4.812	16.039	49.764
3	3.037	10.124	59.889	3.037	10.124	59.889
4	1.809	6.030	65.919	1.809	6.030	65.919
5	1.110	3.701	69.619	1.110	3.701	69.619
6	1.081	3.604	73.223	1.081	3.604	73.223
7	.789	2.628	75.851			
8	.728	2.427	78.279			
9	.706	2.353	80.632			
10	.646	2.153	82.785			
11	.600	1.998	84.784			
12	.518	1.726	86.510			
13	.449	1.497	88.007			
14	.433	1.444	89.450			
15	.382	1.272	90.722			
16	.355	1.184	91.906			
17	.316	1.054	92.960			
18	.292	.974	93.935			
19	.256	.853	94.788			
20	.235	.783	95.571			
21	.213	.712	96.283			
22	.186	.621	96.904			
23	.178	.595	97.498			
24	.168	.560	98.058			
25	.135	.451	98.509			
26	.108	.360	98.869			
27	.097	.323	99.192			
28	.094	.312	99.504			
29	.077	.256	99.761			
30	.072	.239	100.000			

Extraction Method: Principal Component Analysis

Table 3: Analysis Result of Indicators

Construct	Loadings	p-value	Weights	T-statistics	p-value	WIF	Path Coefficients	p-value
Attitude								
ATT1	0.908	0.000	0.479	31.637	0.000	2.041	0.853	0.000
ATT2	0.942	0.000	0.600	19.602	0.000	2.041		
ATT3	0.892	0.000	0.325	2.365	0.018	2.613		
ATT4	0.951	0.000	0.564	3.758	0.000	2.626		
ATT5	0.670	0.000	0.131	1.569	0.117	1.548		
ATT6	0.741	0.000	0.115	1.115	0.265	1.874		
Self-efficacy								
SE1	0.888	0.000	0.712	10.648	0.000	1.146	0.786	0.000
SE2	0.746	0.000	0.493	9.983	0.000	1.146		
SE3	0.910	0.000	0.415	2.657	0.008	2.655		
SE4	0.737	0.000	0.166	1.250	0.212	1.729		
SE5	0.946	0.000	0.594	3.041	0.002	4.300		
SE6	0.821	0.000	-0.076	0.462	0.644	3.720		
PLPI								
PLPI1	0.934	0.000	0.508	29.752	0.000	2.417	0.790	0.000
PLPI2	0.945	0.000	0.556	25.940	0.000	2.417		
PLPI3	0.873	0.000	0.362	3.181	0.002	2.104		
PLPI4	0.725	0.000	0.254	2.283	0.023	1.494		
PLPI6	0.918	0.000	0.544	5.033	0.000	1.957		

Note. PLPI= Perceived Level of Planning Interviewing

Table 4: Results Summary for Outer Models

Construct	Loadings	p-value	Composite Reliability	AVE
INT				
INT1	0.864	0.000	0.909	0.770
INT2	0.886	0.000		
INT3	0.883	0.000		
PTP				
PTP1	0.838	0.029	0.919	0.738
PTP3	0.866	0.036		
PTP4	0.877	0.015		
PTP5	0.856	0.012		
SN				
SN1	0.674	0.000	0.837	0.634
SN2	0.847	0.000		
SN3	0.854	0.000		

Note. INT= Intention; PTP= Perceived Time Pressure; SN= Subjective Norm.

Table 5: Cross Loading of Reflective Models

	INT	PTP	SN
INT1	0.864	0.038	0.565
INT2	0.886	0.059	0.637
INT3	0.883	-0.199	0.634
PTP1	0.009	0.838	0.052
PTP3	0.050	0.866	0.111
PTP4	-0.112	0.877	-0.068
PTP5	-0.041	0.856	0.027
SN1	0.399	-0.110	0.674
SN2	0.597	-0.081	0.847
SN3	0.639	0.167	0.854

Note. INT= Intention; PTP= Perceived Time Pressure; SN= Subjective Norm.

Table 6: Discriminant Validity by the Square Root of AVE

Construct	AVE	INT	PTP	SN
INT	0.770	0.878		
PTP	0.738	-0.050	0.859	
SN	0.634	0.700	0.011	0.796

Note. INT= Intention; PTP= Perceived Time Pressure; SN= Subjective Norm.

Table 7: Summary of Path Coefficients & Significance Levels

Hypothesis	Path coefficients	T-statistics	Results
Expected Positive Relationships			
Attitude → INT	0.152	1.653	Not Supported*
SN → INT	0.448	4.553	Supported**
Self-efficacy → INT	0.414	5.019	Supported**
INT → PLPI	0.795	16.133	Supported**
Expected Negative Relationships			
NFCC → PLPI	0.085	1.227	Not Supported*
Moderation of 'NFCC' between 'INT' and 'PLPI'	0.007	0.508	Not Supported*
PTP → PLPI	-0.144	1.683	Not Supported*
Moderation of 'PTP' between 'INT' and 'PLPI'	-0.074	1.346	Not Supported*

Note. INT= Intention; SN= Subjective Norm; NFCC= Need for Cognitive Closure; PLPI= Perceived Level of Planning Interviewing; PTP= Perceived Time Pressure.

*p > 0.01. **p < 0.001.

Figure

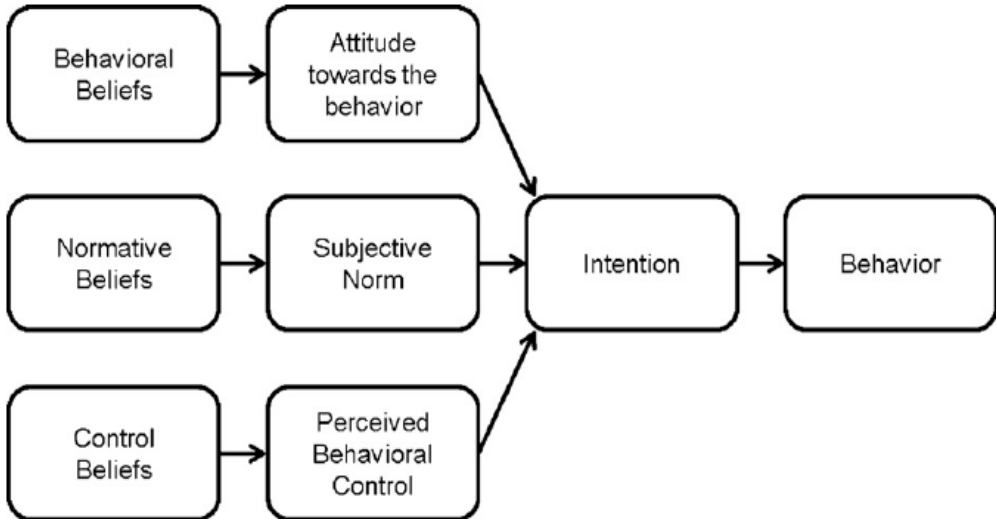


Figure 1: Structural model of the theory of planned behaviour (Ajzen, 2006)

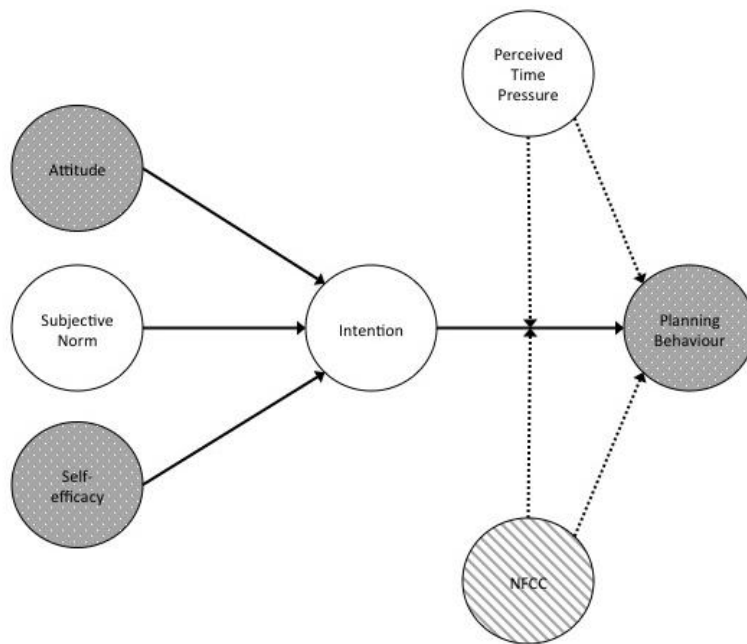


Figure 1: Theoretical Model of Interview Planning Behaviour

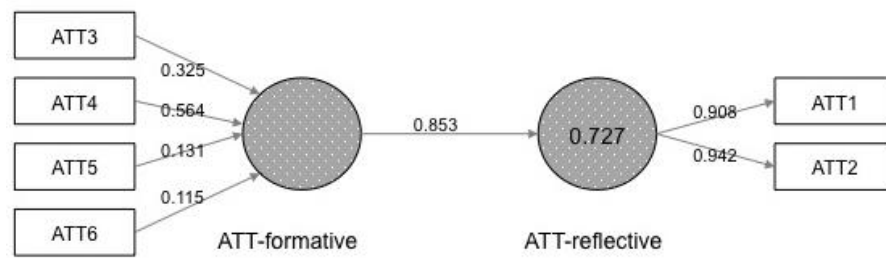


Figure 3: Redundancy Analysis of Attitude (ATT) Indicators

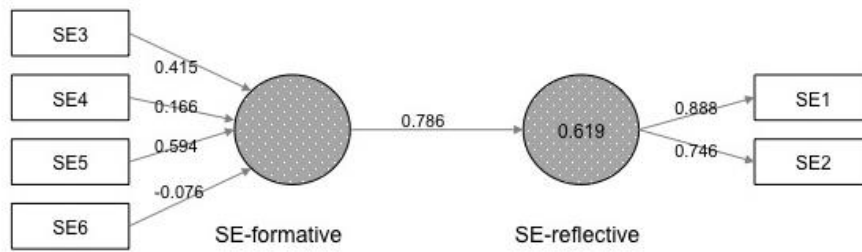


Figure 4: Redundancy Analysis of Self-Efficacy (SE) Indicators

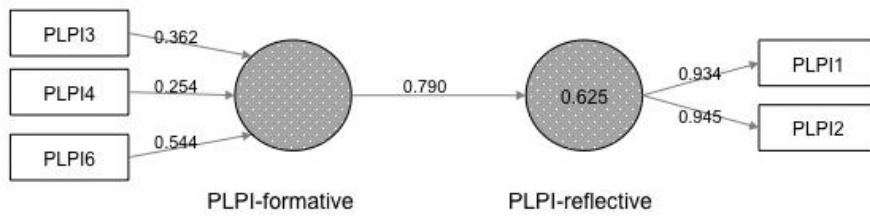


Figure 5: Redundancy Analysis of Perceived Level of Planning Interviews (PLPI) Indicators

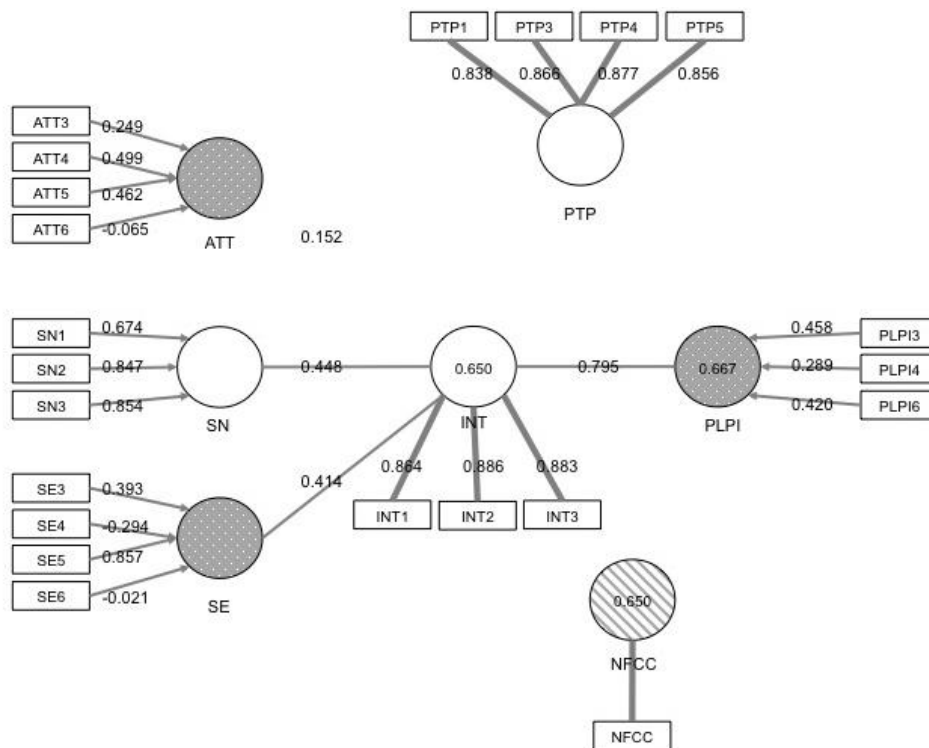


Figure 6: PLS results for Interview Planning Factor Relation

Key:

PTP = Perceived time pressures

ATT = Attitudes

SN = Subjective Norms

INT = Intention

PLPI= Perceived level of planning intention

SE = Self-Efficacy

NFCC = Need for Cognitive Closure

Responses to reviewer:

Note – we have intermingled our responses to your comments in order for you to efficiently see how we have responded to each of your comments. While our comments were originally italicised, we have now put them also in bold and prefaced each comment with reviewer comment and author responses accordingly in turn.

Reviewer #1: Review of: Planning ahead? An exploratory study of South Korean Investigators' beliefs about their planning for investigative interviews

For consideration in: Journal of Police and Criminal Psychology

Reviewer comment: The research covered in this manuscript represents an important area for research and practice in the area of the psychology of investigative interviews. Indeed, the research addresses an area in need of more empirical attention. The manuscript has clear relevance for the readership of the Journal of Police and Criminal Psychology - academics and practitioners, including investigative interviewers. However, it is recommended that the manuscript be significantly revised with a consideration of the following issues.

Most importantly, this manuscript requires a major re-organization. For example, in two places in the introduction, the goals of the study are introduced, indicating some redundancy.

Authors' response: We thank the reviewer for pointing out this oversight, and (in its second appearance on Page 6) the goals of the study have been removed, and the sentence has been re-worded.

Reviewer comment: Moreover, as discussed below, some of what is included in the methods section is arguably more relevant to the introduction section.

Authors' response: We are also grateful to the reviewer for this direction. With adjustment to the text, we have re-positioned in the introduction, what we believe, the material to which the reviewer refers

Reviewer comment: The introduction would benefit from a more thorough discussion of the importance of planning in all investigative interviewing contexts (e.g., witnesses, victims, as well as suspects).

Authors' response: To an extent, we accept this point, but the focus of this study quite clearly concerns the planning of interviews with suspects in south Korea. We now make this clear in the title. We also make it clear on page 3, please see the Schollum reference. We feel, however, that (the required) extended discussion on the planning of other interviews (such as victims, witnesses and even, informants) would then become to be seen as irrelevant, as there is evidence (e.g. Clarke & Milne, 2001) that attitudes towards interviewing of witnesses are quite different (e.g. even less planning) to that of suspects.

Reviewer comment: It is indicated that the PEACE model is used in the UK; however, it should be noted that the technique is also utilized throughout North America (e.g., by the RCMP).

Authors' response: Page 4; The script has now been amended more fully to explicitly describe some of the countries where PEACE has been adopted -although the existing references; Bull,

2014 and Walsh et al., 2016 are both edited books that demonstrate quite fully where the PEACE has been adapted across the world

Reviewer comment: The widely available criticisms of the Reid model should be discussed.

Authors' response: We are concerned that such discussion would detract from the central aims of the study – that is, how do those officers who have been trained in the PEACE model attend to planning (being a fundamental component of the model in which they are trained). As such, we are unsure how then a discussion of the merits of other models such as Reid might serve this study, particularly as these concerns, to which the reviewer alludes, have been extensively chronicled on a multitude of occasions elsewhere. This study explicitly states it concerns investigative interviewing and demonstrates that we are examining planning of interviews with suspects - the Reid Model cannot profess to be an investigative interviewing model.

Reviewer comment: On page three, first paragraph, it is indicated that little is known about the planning and preparation stage of investigative interviews. Much is known, however, in terms of the available research. Whether this knowledge is translated into proper training in the investigative interviewing context remains an issue in need of exploration.

Authors' response: We are sorry to yet again take a contrary stance to the reviewer, but we disagree. We are quite clear that the context of our comment was not about planning and preparation per se, -that is

"Moreover, previous research has tended to explore how much criminal investigators prepare for interviewing rather than what factors influence investigators' decisions whether or not to plan (Clarke & Milne, 2001; Walsh & Bull, 2010). As a result, little is actually known about the planning and preparation stage of the investigate interview."

We stand by our position, implicitly stated, that (as far as is known) this is the first study to examine planning from this perspective as little is known what investigators do (or do not do) when planning. Studies have tended to examine planning from a retrospective position. That is, from studies of field interviews, asking the question- does the interview look like prior planning has been undertaken from the conduct of the interview? Or alternatively, from surveys of professionals asking them whether or not they plan, - but not what they actually do when planning – we proceed to cover much of this literature in the introduction

As such, we would also argue, despite the reviewer's confidence, that much is not known about planning, in the context which we explicitly make mention. We make some amendments to the text on Page 3 to make our argument even clearer.

Reviewer comment: On page 6, there is a statement about interview performance which should be defined / expanded upon in terms of the impact of planning on performance.

Authors' response: We thank the reviewer for this suggestion, and as such an amendment has been to the text to state more explicitly such impact

Reviewer comment: On page 7, the issue of cultural expectations is introduced into the hypotheses. However, there was no discussion of this issue in the introduction.

Authors' response: We would hope the re-positioning of the material formerly in the methods section now enable this query to be satisfactorily resolved

Reviewer comment: Also, it is unclear how 'subsequent planning intent' has been operationalized.

Authors' response: We accept that the use of the word subsequent indicates that we examined their actual planning activity, and as such we have removed this word and replaced it with 'perceived', given the methods we used

Reviewer comment: Further, NFCC is first mentioned in the hypotheses section yet is operationalized in the method section - it should be first discussed in depth in the introduction.

Authors' response: We hope that the re-positioning of the material now in the introduction, in response to the reviewer's earlier comment now enables this query to be resolved.

Reviewer comment: Much of what is written in the method section on page 7 and 8 (in terms of definitional issues) should be discussed in the introduction, not the method section.

Authors' response: Now re-positioned

Reviewer comment: With regard to the section on materials, the authors should separate issues about ethical approval from issues related to the development of the questionnaire.

Authors' response: Now undertaken

Reviewer comment: More information in the pilot study and its noted success should be provided.

Authors' response: Such details have now been provided in Section 2.1

Reviewer comment: In terms of the participants section, it is not clear when and how the questionnaires were administered and if participation was voluntary.

Authors' response: We hope that the re-wording of the former Section 2.4 (now 2.3) resolves this query

Reviewer comment: As number of the results are stated in the section on the participants (as well as in the analytical and statistical framework section) - these results should be in the results section.

Authors' response: Both of these sub-sections have now been placed in the results section

Reviewer comment: With regard to the results section, on page 14, more information in the exploratory study should be discussed.

Authors' response: We are a little confused here but we wonder whether this this may be because the reviewer may be under the impression that a separate exploratory study has been conducted, when here we are referring to this present study, which is exploratory (as has been noted on several occasions throughout the text and title). The text has been amended to make this clearer. If we have mis-interpreted, we would welcome more specific guidance.

Reviewer comment: Most of the references in this section could be removed.

Authors' response: These adjustments have been made

Reviewer comment: There is some interpretation of the results in the results section - such should be restricted to the discussion.

Authors' response: We cannot identify where there is interpretation of the results in the results section. Any interpretations relate to the validity etc of the model used to calculate the results, but not of the results themselves – if you can identify where you think we have undertaken such interpretations please advise so that we may correct

Reviewer comment: The discussion section has an entire section devoted to limitations yet limitations are discussed at the end of page 19 - the redundancy should be removed.

Authors' response: A re-positioning of this paragraph has been undertaken to place it in the section concerning the study's limitation

Reviewer comment: As well, the second paragraph in the limitations section appears to be implications, not limitations. It is not clear how agencies need to enhance the importance of planning when viewed in the context of a study of mostly PEACE trained individuals (i.e., as preparation and planning are part of the training).

Authors' response: The reviewer is correct – the original placement of this paragraph adjacent to the limitations section (i.e. immediately following) is confusing, and we have re-situated this paragraph immediately before the limitations section. The paragraph has been re-worded to incorporate known concerns from prior studies about field practice that is relate to less about the training quality, but more what happens thereafter in practice

Reviewer comment: There are a few notes on interviewing before investigating and vice versa - this is somewhat confusing as an investigative interview is part of an investigation - this issue should be flushed out. It would be beneficial to include a discussion on the importance of field research on the topic, including research that examines the impact on planning on actual investigative outcomes.

Authors' response: This section has been re-worded in accordance with the reviewer's good advice

Reviewer comment: In terms of minor issues: lines 20-24 on page 4 should be reworded as the sentence is awkwardly written;

Authors' response: Now revised

Reviewer comment: on line 49 of page 4, "admitting" should be changed to "have admitted."

Authors' response: Now revised

Reviewer comment: One page 5, line 5, it is not clear what is meant by "defectiveness" - this should be clarified.

Authors' response: Now revised to bring clarification

Reviewer comment: On page 5, the comma after Mortimer and Shephard (1999) in the second paragraph should be removed.

Authors' response: Now revised

Reviewer comment: On page 7, the comma after (1991) on line 57 should be removed.

Authors' response: Actually, we believe a comma after (1991) should be inserted?

Reviewer comment: On page 8, second paragraph, the issues related to intentions and time pressure are redundant with what has previously been written.

Authors' response: We agree that perceived time pressure has already been covered (and has such has been removed), but we are less sure that intentions in the manner that we cover it here has already been discussed, and would argue for its retention.

Reviewer comment: On page 8, line 49, it not clear how 'seizing' and 'freezing' are relevant to the present context.

Authors' response: We agree, and are thankful to the reviewer. This sentence now has been removed as it is no longer appropriate after earlier editing.

Reviewer comment: The first paragraph on page 9 seems to belong in the introduction, not the method section.

Authors' response: Now revised and incorporated in the introduction

Reviewer comment: The last paragraph on page 9 should indicate there were "questions about" investigators attitudes, included in the questionnaire.

Authors' response: Now revised

Reviewer comment: On page 10, line 41, the sentence should start with "Eighty percent" as opposed to 80%.

Authors' response: Now revised

Reviewer comment: On page 14, line 36, "to be" should be before "significant."

Authors' response: Now revised

Reviewer comment: The citations at the end of the last paragraph on page 19 are out of order.

Authors' response: Now revised

Reviewer comment: More generally, there are a number of extra spaces after periods that should be removed.

Authors' response: We now feel that all these have been identified and revised

Reviewer comment: Also, at some points, there are spaces after statistical figures are used and sometimes not - one style should be chosen and the author's should be consistent throughout their manuscript.

Authors' response: We now feel that all these have been identified and revised

Reviewer comment: It is not clear if the questionnaire and measures were completed in English or translated into English for the purposes of submission for review for publication. This issue should be addressed.

Authors' response: A note has been inserted in Appendix to reflect that the questionnaire has been translated from the original language to English for the purposes of publication

Reviewer comment: It is hoped that the authors find these suggestions useful in improving their manuscript.

Authors' response: We are thankful for these suggestions, which in the large part we agree with, and the authors concur that, as a consequence, the manuscript is enhanced.